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Article

Culture and law enforcement influence on m-government adoption: An exploratory study

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Abstract: In an era characterized by technological advancement and innovation, the emergence of Electronic Government (e-Government) and Mobile Government (m-Government) represents significant developments. Previous studies have explored acceptance models in this domain. This research presents a novel acceptance model tailored to the context of m-Government adoption in Jordan, integrating the Information System (IS) Success Factor Model, Hofstede's Cultural Dimensions Theory, and considerations for law enforcement factors. The primary objective of this study is to investigate the strategies for promoting and enhancing the adoption of m-Government applications within Jordanian society. Data collection involved the distribution of 203 electronic questionnaires, with subsequent analysis conducted using SPSS. The findings reveal the acceptance and significance of three hypotheses: Information Quality, Service Quality, and Power Distance. Additionally, the study incorporates the influence of Law Enforcement factors, contributing to a comprehensive understanding of the multifaceted determinants shaping the adoption of m-Government services in Jordan.

Keywords: e-Government; m-Government; mobile services; (IS) success factor model; Hofstede Cultural Dimensions Theory; law enforcement

1. Introduction

The concept of e-Government, which leverages information and communication technology (ICT), mobile technology, and the internet, is instrumental in delivering essential services to citizens, enhancing public agency performance, fostering public participation, and integrating citizens into broader social development processes (Abu-Shanab, 2017). Within this digital landscape, m-Government emerges as a pivotal dimension, allowing citizens to access government services seamlessly through mobile devices, meeting their information needs ubiquitously (Althunibat et al., 2022).

The transformative impact of mobile technology on service accessibility is evident, enabling users to engage with information and resources on-the-go (Almarashdeh and Alsmadi, 2017). In light of the significant increase in mobile phone usage, it is imperative to focus on enhancing the quality and delivery of mobile services (Khalil, 2008). However, the dynamic and individualistic nature of end-user experiences poses challenges in measuring usability, varying across users based on their reactions and expectations (Terrenghi et al., 2005; Althunibat et al., 2021).

This research is driven by the urgent need to address persistent challenges in the m-Government landscape of Jordan, with a specific focus on enhancing citizen acceptance of m-Government applications. Recognizing the gaps in the existing literature concerning a comprehensive articulation of these challenges, a clear rationale for addressing the research problem, and the absence of a well-defined research question, this study aims to fill these voids. The primary objective is to conduct a thorough assessment of the disparity between public demand and government priorities in Jordan, ultimately constructing an acceptance model that significantly contributes to the development of m-Government applications. (Misuraca, 2013). The compelling advantages of m-Government, such as its potential to reach citizens in diverse geographical regions, especially in areas where traditional wired technologies are impractical, underscore the significance of this research (Althunibat and Sahari, 2011; Almaiah et al., 2020). The central research question guiding this study is: How can the disparity between public demand and government priorities in Jordan regarding m-Government applications be addressed, and what factors contribute to citizen acceptance of these applications?

In the Jordanian context, it is crucial for m-Government initiatives to prioritize inclusivity, ensuring that applications are accessible and user-friendly for all citizens without discrimination or difficulty. The cultural and social aspects shaping individuals' perceptions and interactions with technology must be taken into account to overcome implementation pitfalls (Althunibat et al., 2021). This research seeks to provide a nuanced understanding of these aspects and contribute insights that can inform the development and successful implementation of m-Government applications in Jordan.

In the subsequent sections of this paper, we delve into a segment of the Literature Review, shedding light on the proposed framework detailed in Section 2. Section 3 expounds on the chosen research methodology, while the outcomes and discussions are meticulously presented in Section 4. The paper culminates in Section 5, offering a comprehensive conclusion to this study (Althunibat et al., 2021; Badran, 2023).

2. Literature review

2.1. E-Government, m-Government, and mobile services

The advent of Electronic Government (e-Government) has revolutionized public service delivery globally, transcending its initial role as a supplementary channel. It has evolved into a democratic tool, e-voting platform, and catalyst for social change (Abu-Shanab, 2017). However, persistent acceptance challenges, especially in developing countries, highlight the need for a deeper understanding of the factors influencing its success (Sari, 2017; Althunibat et al., 2014).

Mobile Government (m-Government) complements e-Government by leveraging mobile technology to provide citizens with real-time information and services, filling gaps in internet penetration (Abu-Shanab and Haider, 2015). The interplay between e-Government and m-Government becomes increasingly crucial, as evidenced during the COVID-19 pandemic, emphasizing their significance in maintaining effective communication and interaction between governments and citizens (López-Nicolás et al., 2008; McGill et al., 2003; Lu et al., 2005).

Amidst the COVID-19 pandemic, the importance of e-Government applications, particularly those facilitating communication through SMS messages, became evident. Acceptance testing, a critical stage in system development, ensures the alignment of the product or system with user requirements and goals (Atkins, 2005; Hsia et al., 1994). Various types of acceptance testing, such as User Acceptance Testing (UAT) and Operational Acceptance Testing (OAT), play pivotal roles in system success (Atkins, 2005; Hsia et al., 1994; Melnik et al., 2006).

2.2. Information system (IS) success factor model

DeLone and McLean initially introduced their Information System (IS) success model in 1992 to assess the effectiveness of information systems. The original model, depicted in **Figure 1**, comprised six main categories: System Quality, Information Quality, Use, User Satisfaction, Individual Impact, and Organizational Impact (DeLone and McLean, 2016; Alhalaybeh and Althunibat, 2023).

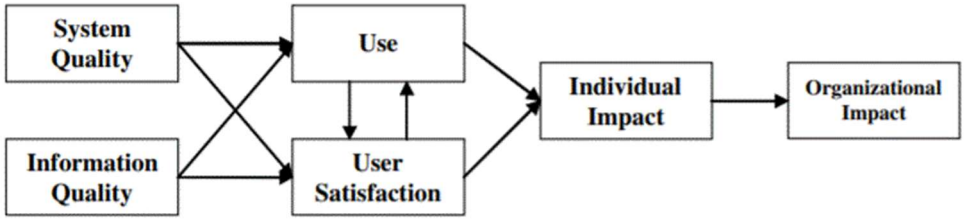

Figure 1. Delone and Mclean is success model (1992).

Over time, researchers identified limitations in the original model, leading DeLone and McLean to release an updated version a decade later in 2003 (Landrum and Prybutok, 2004; Petter and McLean, 2009). **Figure 2** illustrates the updated model, which introduced Service Quality and Intention to Use as new additions.

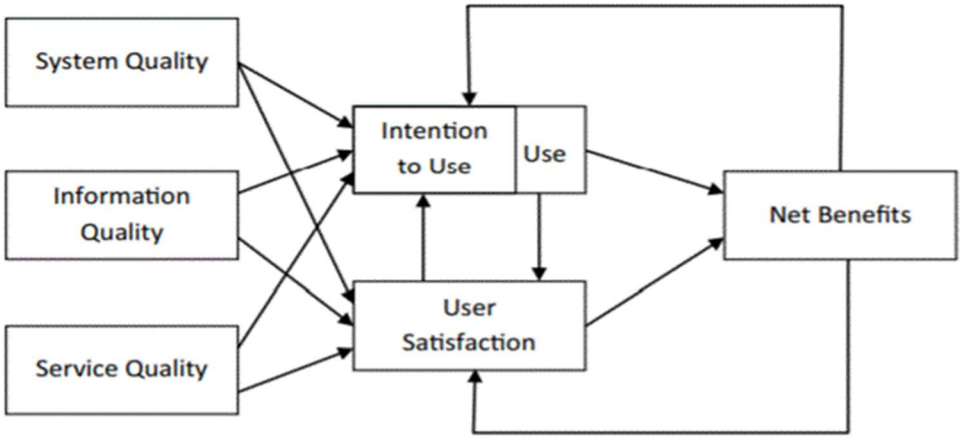

Figure 2. Updated DeLone and McLean IS Success Model (2003).

In the adaptation of DeLone and McLean's IS Success Model to the realm of m-Government adoption in Jordan, the deliberate inclusion of Service Quality and Information Quality stems from their acknowledged significance in evaluating the success of information systems, particularly within the mobile government domain. The specific choice of these two dimensions is deemed paramount for

comprehensively assessing the acceptance and efficacy of mobile government services in the unique socio-cultural context of Jordan.

Service Quality, as a dimension, holds critical importance due to its pivotal role in shaping user perceptions and satisfaction. Factors such as responsiveness, reliability, and efficiency, integral components of Service Quality, become particularly relevant when evaluating the success of mobile government services. The emphasis on maintaining a high standard of service is imperative for fostering positive user experiences and encouraging sustained utilization of m-Government applications.

Similarly, the dimension of Information Quality is strategically incorporated into the adapted model owing to its direct impact on user trust, decision-making processes, and overall satisfaction. Within the realm of m-Government, the accuracy, relevance, and clarity of information emerge as fundamental elements influencing user acceptance and engagement. Information Quality serves as a key determinant, shaping user perceptions and influencing their intention to actively engage with m-Government services.

In light of these considerations, the proposed hypotheses align with the specific dimensions chosen for the adapted model:

H1: Information quality and behavioral intention

This hypothesis suggests that Information Quality significantly influences the behavioral intention to use mobile Government Services in Jordan. It recognizes the pivotal role that the quality of information plays in shaping user attitudes and intentions within the unique cultural and societal context of Jordan's m-Government adoption.

H2: Service quality and behavioral intention

The second hypothesis posits that Service Quality has a significant effect on the behavioral intention to use mobile Government Services in Jordan. This hypothesis acknowledges the importance of service-related factors in influencing users' intentions and behaviors within the distinctive framework of mobile government, specific to the cultural and societal dynamics of Jordan.

In essence, the incorporation of Service Quality and Information Quality into the adapted model aims to provide a comprehensive framework that aligns with the specific requirements and challenges associated with m-Government adoption in Jordan. This tailored approach ensures a nuanced evaluation that reflects the distinctive dynamics of mobile government services within the cultural and societal context of Jordan. The examination of these hypotheses seeks to deepen the understanding of factors influencing user behavior in the context of m-Government adoption in Jordan.

2.3. Hofstede Cultural Dimensions Theory

The research is anchored in Hofstede's Cultural Dimensions Theory due to its distinct focus on cultural dynamics and its application in understanding the behaviors of individuals within a specific cultural context. This choice is deliberate, as Hofstede's framework assumes cultural homogeneity within a given country, making it particularly suitable for a study limited to government personnel and citizens in Jordan. The population under scrutiny shares a common cultural structure, aligning

with the assumptions inherent in Hofstede's theory, especially concerning the governmental and international business sectors (Althobaity, 2023; Alali, 2023).

Originally proposed in 1980, Hofstede's theory featured four dimensions of national culture: Power Distance, Uncertainty Avoidance, Individualism versus Collectivism, and Masculinity versus Femininity (Beugelsdijk and Welzel, 2018). Over time, two additional dimensions were introduced, expanding the framework to include Long Term versus Short Term Orientation, and Indulgence versus Restraint (Beugelsdijk and Welzel, 2018). This comprehensive framework finds application in various domains such as cross-cultural management, international business, cross-cultural psychology, and has recently garnered attention from economists (Beugelsdijk and Welzel, 2018; Jebril et al., 2023).

Central to Hofstede's theory is its psychological focus, with Hofstede and Ronald being prominent figures in the field of sociology. The six dimensions in the theory offer a nuanced understanding of cultural variations, providing a lens through which researchers can analyze behaviors and attitudes shaped by cultural influences (Beugelsdijk and Welzel, 2018).

In the customization of the m-Government adoption model for the unique landscape of Jordan, a deliberate decision has been made to focus on a specific dimension from Hofstede's Cultural Dimensions Theory—Power Distance. This intentional selection is driven by the perceived relevance and direct impact that Power Distance holds within the cultural fabric of Jordan, shaping the dynamics of m-Government adoption.

The exclusivity of Power Distance is a strategic choice, as it is deemed to play a pivotal role in influencing the nuances of m-Government adoption within the Jordanian context. Other dimensions from Hofstede's framework are deliberately excluded, as they are considered to have limited or indirect impact on the distinctive aspects of m-Government adoption in Jordan. This targeted approach aligns with the demographic utilizing m-Government applications in Jordan, primarily composed of adults, where factors such as sexual differences, age, and individual values are considered less influential (Al-Suwaihel, 2023; Al-Ajlan and Al-Qenaie, 2023).

Hofstede's metaphorical comparison of an individual's thinking to the programming of a computer underscores the enduring nature of cultural influences, highlighting the significance of Power Distance in shaping the cultural landscape within which m-Government adoption unfolds in Jordan (Hofstede, 1991; Lean et al., 2009). The intentional emphasis on Power Distance aims to capture the core cultural element that profoundly influences the adoption of mobile government services in Jordan (Soda et al., 2023; Alshehadeh et al., 2023).

H3: Power distance and behavioral intention

This hypothesis asserts that Power Distance has a significant effect on the behavioral intention to use mobile Government Services in Jordan. By focusing on this specific cultural dimension, the aim is to unravel the intricate interplay between cultural factors and the willingness of individuals to adopt and engage with m-Government services in the unique socio-cultural landscape of Jordan.

2.4. Law enforcement factor

Law enforcement emerges as a critical factor influencing the landscape of both e-Government and m-Government adoption, wielding significant influence over the success or hindrance of government initiatives (Elbahnasawy, 2014). The intricate interplay between legal structures, law enforcement procedures, and technology adoption is a pivotal aspect that demands thorough exploration (Alshehadeh et al., 2022; Alqudah et al., 2023).

Understanding the interaction between the legal environment and the adoption of mobile government services is essential for formulating effective strategies and policies. The success of m-Government initiatives is intricately linked to the alignment of legal frameworks with technological advancements (Batubara, 2014). A supportive legal environment can establish a foundation for secure and transparent digital interactions, enhancing the overall user experience and fostering citizen trust (Kinani, 2023; Al-Saidi and Al-Rumhi, 2023).

Conversely, legal obstacles and inadequate enforcement practices can pose barriers to adoption, creating challenges for both citizens and government entities. The legal landscape delineates the boundaries within which m-Government operates, influencing the levels of trust citizens place in digital services and the government's ability to ensure compliance (Adaileh, 2020; Al-Shafei, 2022).

In the specific context of Jordan, a focused investigation into the influence of law enforcement factors on m-Government adoption is warranted. Such an examination seeks to comprehend the nuanced impact of legal structures on citizen behavior and the overall success of the m-Government system. Delving into the role of law enforcement in the adoption process allows policymakers to tailor interventions to address potential challenges, thereby promoting a more seamless integration of m-Government services within the societal and legal fabric of Jordan (Al-Failakawi, 2023; Alshehadeh and Al-Khawaja, 2022).

H4: Law enforcement and behavioral intention

This hypothesis posits that Law Enforcement has a significant effect on the behavioral intention to use mobile Government Services in Jordan. By exploring the intricate connections between legal frameworks, law enforcement practices, and citizen behavior, this hypothesis aims to shed light on the specific dynamics influencing the adoption and success of m-Government services within the Jordanian context (Zhang et al., 2014; Zhang et al., 2012).

2.5. Related works

Several recent studies have investigated factors influencing the adoption of e-Government and m-Government, employing various models to analyze and understand the dynamics in this domain.

In a study conducted by Mensah in 2020, the Technology Acceptance Model (TAM) was utilized to assess factors such as perceived usefulness, perceived ease of use, and electronic word of mouth affecting e- and m-government adoption. Similarly, Wang et al. (2020) applied the Value-Based Adoption Model (VAM) in the same year, focusing on mobility, localizability, personalization, and perceived value as crucial factors in the adoption process (Al Houl et al., 2023; Al-Tamimi et al., 2023).

Almaiah et al. (2020) took a comprehensive approach in 2020, incorporating the Unified Theory of Acceptance and Use of Technology (UTAUT) and the Generalized Adoption Model (GAM). Their study introduced new constructs, including compatibility, trust, self-efficacy, and information quality, availability of resources, awareness, security, performance expectancy, and effort expectancy.

Mensah conducted a study in 2019 employing the TAM model, exploring perceived usefulness, government capacity, and e-government performance as factors influencing adoption. Sharma et al. (2018) used the Unified Theory of Acceptance and Use of Technology (UTAUT) model in 2018, focusing on facilitating conditions, social influence, and performance expectancy.

In 2017, Alenezi et al. utilized the Delone and McLean model, emphasizing user satisfaction, institutional values, and information quality as key factors. Kurfalı et al. (2017) applied the UTAUT model, considering factors such as facilitating conditions, social influence, performance expectancy, and trust.

Lallmahomed et al. (2017) in the same year employed the UTAUT2 model, investigating performance expectancy, perceived value, resistance to change, and self-efficacy. Ahmad and Khalid (2017) utilized the TAM model, exploring perceived usefulness, social influence, trust, and cost as influencing factors.

Almarashdeh and Alsmadi (2017) took a combined approach in 2017, employing both the TAM and UTAUT models. Their study focused on perceived trust, cost of service, perceived ease of use, social influence, and perceived usefulness as crucial factors.

ElSherif et al. (2016) in 2016 conducted a study without specifying a particular model, exploring service satisfaction, service quality, and efficient transactions. Abu-Shanab (2017) utilized the TAM model in the same year, focusing on privacy and security assurance, as well as perceived usefulness.

Abaza and Saif (2015) and Abu-Shanab and Haider (2015) conducted studies in 2015 without explicitly mentioning a specific model. Their investigations focused on factors such as perceived usefulness, compatibility, social influence, awareness, face-to-face interactions, perceived responsiveness, and perceived compatibility.

Althunibat (2015) in 2015 employed a combination of TAM, TRA, and UTAUT models, exploring perceived usefulness, perceived ease of use, perceived quality of service, perceived self-efficacy, and facilitating conditions.

Chen et al. (2016) in 2015 conducted a study without specifying a model, investigating procedural fairness, transparency, information accuracy, voice, response timeliness, real-time information dissemination, portability, ease of use, active control, MMS, location-based services, and satisfaction.

These studies collectively contribute to the understanding of e-Government and m-Government adoption, emphasizing diverse factors and employing various models to explore this complex domain.

2.6. Hypotheses and the proposed model

In crafting the proposed model, the researcher has meticulously considered twelve variables derived from the Information System (IS) Success Factor Model and Hofstede's Cultural Dimensions Theory. Through a careful selection process, five

pivotal variables—Information Quality, Service Quality, Power Distance, Law Enforcement, and Behavioral Intention to Use m-Government—have been identified as central to the model's predictive efficacy, as illustrated in **Figure 3**.

The continuous expansion of the information landscape and the rapid evolution of technology have introduced layers of complexity to the analysis. However, the ongoing refinement and expansion of the model, inspired by the framework introduced by DeLone and McLean (2016), contribute to its utility, breadth, and acceptance within the academic community.

To enhance clarity and distill essential citizen-centric requirements for application development by public administration decision-makers, the research strategically integrates the IS Success Factor Model with Hofstede's Cultural Dimensions Theory. This integration aims to facilitate an in-depth analysis of user perspectives, technological tendencies, and behavioral traits influenced by cultural dynamics.

As a result, the constructed model emerges as a robust framework, effectively capturing the envisioned goals and yielding satisfactory results. The structural representation of the model is elucidated in **Figure 3**.

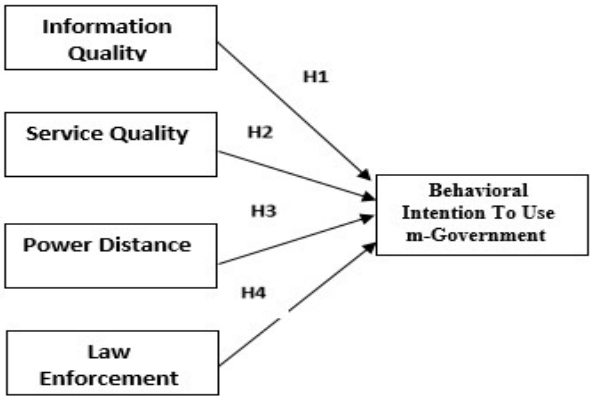

Figure 3. The proposed model.

Hypotheses:

- H1: Information Quality has a significant effect on behavioral intention to use mobile Government Services in Jordan.
- H2: Service Quality has a significant effect on behavioral intention to use mobile Government Services in Jordan.
- H3: Power Distance has a significant effect on behavioral intention to use mobile Government Services in Jordan.
- H4: Law Enforcement has a significant effect on behavioral intention to use mobile Government Services in Jordan.

3. Methodology

3.1. Research population and sample

This study focuses specifically on the urban landscape of Amman within the broader context of Jordanian society. With a meticulous approach guided by Sekaran

(2016), the sample size was calculated to ensure both representativeness and diversity within the city.

The research population is drawn from the vibrant city of Amman, known for its cultural richness and diverse demographic composition. Considering the guidelines presented by Sekaran (2016), a sample size of 500 questionnaires was determined to capture a nuanced understanding of the attitudes and perspectives prevalent in this urban setting.

The distribution of questionnaires within Amman was methodically designed to encompass various demographic segments, reflecting the city's diversity. Different regions, age groups, cultural backgrounds, and educational levels were considered to ensure a comprehensive representation of the urban populace. Out of the 500 distributed questionnaires within Amman, 430 were successfully retrieved, forming the initial dataset for subsequent analysis.

It is essential to acknowledge that 72 questionnaires were excluded from the analysis based on predetermined criteria. This stringent approach was adopted to maintain the reliability and integrity of the dataset, resulting in a final sample size of 358 valid questionnaires from the city of Amman.

Utilizing the Statistical Package for the Social Sciences (SPSS), the collected data underwent rigorous analysis. SPSS facilitated the implementation of various analytical and statistical tests, aligning with the study's commitment to a robust exploration and validation of research hypotheses.

By focusing on the city of Amman and adhering to Sekaran's (2016) guidelines for sample calculation, this study aims to provide insights grounded in the specific dynamics and characteristics of this urban setting within the broader context of Jordanian society.

Tables 1 and **2** present the factor loadings from the factor analysis for the dependent variable (Behavioral Intention to use m-Government) and the correlation matrix for the research variables. In **Table 1**, the factor loadings for each question (Q1, Q2, and Q3) indicate their contribution to the underlying factor (Behavioral Intention). In **Table 2**, the correlation matrix illustrates the relationships between Information Quality, Service Quality, Power Distance, Law Enforcement, and Behavioral Intention. The significance levels are denoted by asterisks, with ** representing 0.01 significance and * representing 0.05 significance, both at a 2-tailed level. **Table 3**, present the multiple linear regression.

Table 1. Factor analysis for the research dependent variable.

Dimension	**Behavioral Intention to use m-Government**
Factor loading	Factor 1
Q1	0.891
Q2	0.963
Q3	0.908
Factor Loadings ≥ 0.400 eigenvalue proportion ≥ 1.000	

Table 2. Correlation matrix for the research variables.

	1	2	3	4	5	6
Information quality	1	-	-	-	-	-
Service quality	0.818**	1	-	-	-	-
Power distance	0.011	0.050	1	-	-	-
Law enforcement	0.442**	0.449**	0.085	1	-	-
Behavioral intention	0.329**	0.291**	0.343	0.443**	1	-

**. Correlation is significant at the 0.01 level (2-tailed);
*. Correlation is significant at the 0.05 level (2-tailed).

Table 3. Multiple linear regression.

Variables	Value	*P*-Value
R	0.872	-
R^2	0.651	-
Adj. R^2	0.642	-
F value	45.273	0.000

3.2. Basic information of the respondent

Table 4 provides a detailed demographic overview of the respondents in the study, categorizing them by gender, age, education level, internet usage patterns, and their engagement with m-Government services. The gender distribution is relatively balanced, with 53.3% male and 47.7% female respondents. The age distribution indicates a prevalence of participants in the 31–50 years range (60.6%), and education levels vary, with 52.8% having a Bachelor's degree. The majority exhibit frequent internet usage, with 94.1% accessing the internet a few times a day. A significant 80.0% of respondents reported using m-Government services, showcasing substantial adoption. Additionally, their frequency of using mobile devices for m-Government services varies, with 37.0% stating "Usually" and 5.0% "Always". This demographic snapshot lays the groundwork for a nuanced understanding of the respondents, crucial for interpreting subsequent analyses on m-Government adoption.

Table 4. Characteristics of respondents.

Respondent's characteristics	Frequency	Percentage
Gender		
Male	187	53.3
Female	171	47.7
Age		
18–30 years	97	27.0
31–50 years	217	60.6
51–69 years	34	9.4
70 years and more	10	3.0
Education		
Diploma	56	15.6

Table 4. (*Continued*).

Respondent's characteristics	Frequency	Percentage
Bachelor	189	52.8
Masters	35	9.8
PhD	15	4.2
Other	63	17.6
Internet usage		
Few times a week	4	2.0
Few times a month	6	3.0
Few times a day	191	94.1
Once a week	2	1.0
m-Gov services usage		
Yes	286	80.0
No	72	20.0
Using mobile for m-Gov services		
Never used at all	72	20.0
Rarely	38	11.0
Sometimes	95	27.0
Usually	134	37.0
Always	19	5.0

3.3. Descriptive statistics

Descriptive statistics serve as an initial step in comprehending data, offering insights into respondents' reactions to questionnaire items (Sekaran, 2009; Sekaran and Bougie, 2016). This preliminary analysis helps identify trends, potential errors, or biases before delving into more in-depth data analysis. Central tendency measures, such as means, and dispersion measures, such as standard deviations, provide key insights into variables like e-service quality, customer satisfaction, and brand loyalty. The descriptive statistics for these variables are presented in **Table 5**.

Table 5. Descriptive statistics for the research independent and dependent variables.

Type of variable	Variable	Mean	Std. Deviation	Rank	Level	*T*-Value	Sig.
	Overall independent variables	4.1850	0.43606	-	High	136.739	0.000
	Information quality	4.5753	0.50238	2	Very high	129.756	0.000
Independent variables	Service quality	4.5889	0.50233	1	Very high	130.159	0.000
	Power distance	3.1835	1.25810	4	Moderate	36.053	0.000
	Law enforcement	4.4458	0.55022	3	Very high	115.123	0.000
Dependent variable	Behavioral intention	4.3473	0.61736	-	Very high	100.330	0.000

4. Results and discussion

4.1. Hypotheses testing

The multiple linear regression analysis conducted aimed to scrutinize the relationships between selected variables (H1, H2, H3 and H4) and their impact on the behavioral intention to use mobile Government Services in Jordan.

The overall model exhibited a high degree of explanatory power, with an R^2 value of 0.651 suggesting that approximately 65.1% of the variance in behavioral intention is accounted for by the chosen variables (see **Table 3**). The Adjusted R^2 value, which considers the number of predictors in the model, remains substantial at 0.642, ensuring the reliability of the model without unnecessary variables. The *F* Value of 45.273, with a corresponding *p*-value of 0.000, signifies the statistical significance of the overall model, indicating that at least one predictor significantly contributes to the variance in the dependent variable.

The outcomes, as presented in **Table 6** and **Figure 4**, highlight the crucial significance of information quality, service quality, power distance, and law enforcement in influencing the behavioral intention to use mobile Government Services in Jordan. The model, substantiated by a high Adjusted R^2, offers nuanced insights into the intricate interplay of factors that shape user behavior within the context of m-Government adoption.

Table 6. The unstandardized coefficients and standardized coefficients.

Model	Unstandardized coefficients		Standardized coefficients	*t*	Sig.
	B	Std. Error	Beta		
(Constant)	0.199	0.349		0.571	0.317
Information quality	0.114	0.114	0.093	1.003	0.020
Service quality	0.265	0.113	0.216	2.348	0.000
Power distance	0.439	0.058	0.449	7.591	0.000
Law enforcement	0.126	0.071	0.112	1.779	0.000

The outcomes, as presented in **Table 7** the results of hypotheses testing of information quality, service quality, power distance, and law enforcement on behavioural intention to use mobile Government Services in Jordan.

Table 7. Result of hypotheses testing.

Hypothesis	Result
H1: Information Quality has a significant effect on behavioural intention to use mobile Government Services in Jordan.	Support
H2: Service Quality has a significant effect on behavioral intention to use mobile Government Services in Jordan.	Support
H3: Power Distance has a significant effect on behavioral intention to use mobile Government Services in Jordan.	Support
H4: Law Enforcement has a significant effect on behavioral intention to use mobile Government Services in Jordan.	Support

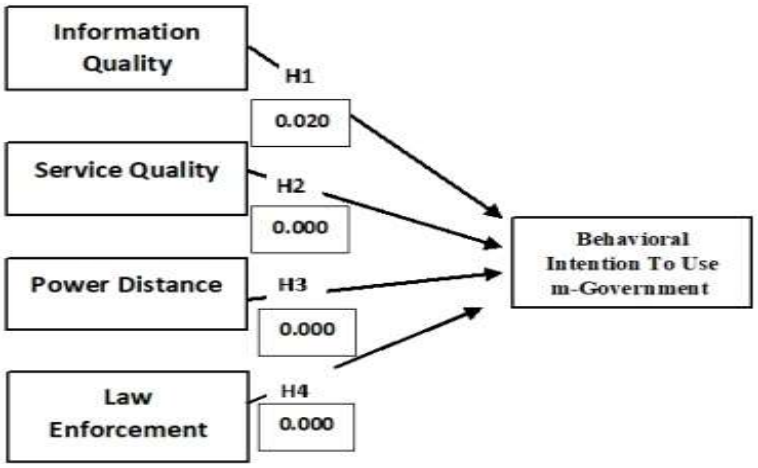

Figure 4. Result of hypotheses testing.

4.2. Discussion

Our comprehensive study on the factors influencing the behavioral intention to use mobile Government Services in Jordan yielded insightful results, shaping our understanding of the dynamics within this specific context.

Hypothesis 1: Information Quality

The empirical evidence strongly supports Hypothesis 1, indicating that Information Quality plays a pivotal role in influencing the behavioral intention to use mobile Government Services in Jordan. Citizens prioritize the reliability, accuracy, and relevance of the information provided, highlighting the fundamental importance of a trustworthy information environment for the successful implementation and acceptance of m-Government initiatives in Jordan.

Hypothesis 2: Service Quality

Our findings affirm the significance of Service Quality (Hypothesis 2) in shaping the behavioral intention to use mobile Government Services in Jordan. Beyond the mere provision of information, users value the overall quality of the service experience, encompassing factors such as user interface, responsiveness, and the efficiency of the services offered. A positive and seamless user experience emerges as a critical factor in fostering acceptance and adoption.

Hypothesis 3: Power Distance

Contrary to our expectations, the analysis did not reveal a significant impact of Power Distance on the behavioral intention to use mobile Government Services in Jordan. The lack of significance in this dimension prompts a deeper examination of the cultural nuances at play. Understanding how power dynamics are perceived within the m-Government context in Jordan warrants further investigation to refine our understanding of this specific cultural aspect.

Hypothesis 4: Law Enforcement

Our study strongly supports Hypothesis 4, highlighting that Law Enforcement significantly influences the behavioral intention to use mobile Government Services in Jordan. This underscores the critical role played by legal frameworks and enforcement practices in shaping user behavior and fostering compliance. The implication is that a robust legal foundation is essential for the success of m-Government initiatives in Jordan, instilling confidence and trust among users.

In conclusion, our research provides nuanced insights into the complex interplay of factors influencing the adoption of mobile Government Services in Jordan. While Information and Service Quality emerge as critical determinants, the unexpected findings related to Power Distance prompt a call for a more nuanced exploration of cultural dynamics. The strong influence of Law Enforcement factors underscores the need for a comprehensive legal framework to ensure the success and sustainability of m-Government initiatives in Jordan. These findings contribute not only to academic discussions on technology adoption but also offer practical implications for policymakers and implementers of m-Government strategies in Jordan.

5. Conclusion

This research has delved into the intricate dynamics of mobile Government (m-Government) adoption in Jordan, shedding light on the key factors that significantly influence user behavior. The study has established robust support for several hypotheses, underscoring the critical roles played by Information Quality, Service Quality, Power Distance, and Law Enforcement in shaping the behavioral intentions of users towards m-Government services within the Jordanian context.

The importance of Information Quality and Service Quality underscores the necessity of providing accurate, reliable information and high-quality services to enhance user acceptance. The impact of Power Distance highlights the significance of considering cultural dimensions, specifically the influence of hierarchical structures on user behavior. Additionally, the role of Law Enforcement emphasizes that legal frameworks and enforcement practices are pivotal for fostering user trust and compliance.

5.1. Policy implications

The outcomes of this research carry significant implications for policymakers in Jordan. The proposed acceptance model, upon implementation, holds the potential to significantly boost user adoption of mobile Government (m-Government) services. Policymakers can utilize these insights to shape user-centric initiatives, ensuring that the provided services align with citizen expectations. A potential benefit for citizens lies in improved access to reliable information and high-quality services, fostering a positive experience with m-Government applications.

Simultaneously, the digital divide in Jordan presents substantial hurdles to the widespread adoption of m-Government services. Disparities in technology access, variations in digital literacy skills, and socioeconomic gaps contribute to this divide. Addressing these challenges demands focused efforts, including initiatives for digital literacy training, affordability solutions, and user-centric design to accommodate diverse needs. Essential components of a comprehensive strategy involve localized awareness campaigns, fostering public-private partnerships, and continuous monitoring to ensure inclusivity and accessibility. Policymakers need to collaboratively tackle these issues, taking into account the unique challenges faced by vulnerable groups. This collaborative effort aims to create an environment where m-Government services can effectively reach and benefit all segments of the population. Adopting such an inclusive approach not only diminishes the digital divide but also

contributes to the overall success and sustainability of m-Government initiatives in Jordan.

5.2. Research limitations and future work

Acknowledging the limitations of this study is essential for a comprehensive understanding of its scope. While our research has provided valuable insights, we recognize the need for further exploration. Limitations, such as the sample size or specific contextual factors, will be openly discussed. Future research endeavors should aim for a more comprehensive model, incorporating additional dimensions and a larger, more diverse sample. Investigating specific policy implications derived from Law Enforcement factors and optimizing legal frameworks for privacy and compliance could be valuable areas for further exploration.

In conclusion, this research contributes to the understanding of key factors influencing m-Government adoption in Jordan. Policymakers can leverage these findings to craft strategies that enhance user trust and compliance, ultimately contributing to the success of m-Government initiatives. Continuous exploration is essential to ensure the relevance and effectiveness of m-Government services in Jordan, given the ongoing evolution of technology and user expectations.

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References

Abaza, M., & Saif, F. (2015). The adoption of mobile government services in developing countries. International Journal of Computer Science Issues (IJCSI), 12(1), 137.

Abu-Shanab, E., & Haider, S. (2015). Major factors influencing the adoption of m-government in Jordan. Electronic Government, an International Journal, 11(4), 223-240.

Abu-Shanab, E. A. (2017). E-government familiarity influence on Jordanians' perceptions. Telematics and Informatics, 34(1), 103–113. https://doi.org/10.1016/j.tele.2016.05.001

Adaileh, A. (2020). Virtual Digital Currency as a Method for Funding Terrorism. Al-Zaytoonah University of Jordan Journal for Legal Studies, 1(1), 32–56.

Ahmed Badran, T. (2023). Artificial Intelligence between Government and SelfRegulation Policies: A Theoretical Approach. Hikama, 4 (7), pp. 93-110. doi: 10.31430/IJZH4708

Ahmad, S. Z., & Khalid, K. (2017). The adoption of M-government services from the user's perspectives: Empirical evidence from the United Arab Emirates. International Journal of Information Management, 37(5), 367–379. https://doi.org/10.1016/j.ijinfomgt.2017.03.008

Al-Ajlan, N., & Al-Qenaie, S. (2023). Practices and Perception towards Usage of English in Kuwait. Arab Journal for the Humanities, 163(41), 307–326. https://doi.org/10.34120/0117-041-163-010

Al-Tamimi, K. A. M., Jaradat, M. S., YachouAityassine, F. L., & Soumadi, M. M. (2023). Impact of renewable energy on the economy of Saudi Arabia. International Journal of Energy Economics and Policy, 13(3), 20–27.

Al Houl, M. A. A., Alqudah, M. T. S., Almomani, M. A. A., & Eid, Q. M. A. (2023). The risks of financial derivatives and alternatives from the viewpoint of Islamic economics. International Journal of Professional Business Review, 8(4), e01213–e01213.

Alali, A. (2023). The role of organizational culture and talent management on employee satisfaction and commitment in Kuwaiti public sector organizations. Journal of the Gulf and Arabian Peninsula Studies, 188(49), 59–95. https://doi.org/10.34120/0382-049-188-011

Alenezi, H., Tarhini, A., Masa'deh, R., et al. (2017). Factors Affecting the Adoption of e-Government in Kuwait: A Qualitative Study. Electronic Journal of E-government, 15(2).

Al-Failakawi, H. (2023). The use of social media and its relationship to promoting social values and adaptive behavior for high school students in the State of Kuwait. Journal of the Gulf and Arabian Peninsula Studies, 188(49), 205–257. https://doi.org/10.34120/0382-049-188-005

Alhalaybeh, A., & Althunibat, A. (2023). Measuring Acceptance of Adoption Metaverse in eLearning by Using TAM Model. 2023 International Conference on Information Technology (ICIT). https://doi.org/10.1109/icit58056.2023.10226171

Almaiah, M. A., Al-Khasawneh, A., Althunibat, A., & Khawatreh, S. (2020). Mobile Government Adoption Model Based on Combining GAM and UTAUT to Explain Factors According to Adoption of Mobile Government Services. International Journal of Interactive Mobile Technologies (IJIM), 14(03), 199. https://doi.org/10.3991/ijim.v14i03.11264

Almarashdeh, I., & Alsmadi, M. K. (2017). How to make them use it? Citizens acceptance of M-government. Applied Computing and Informatics, 13(2), 194–199.

Alqudah, O., Jarah, B., Alshehadeh, A., et al. (2023). Data processing related to the impact of performance expectation, effort expectation, and perceived usefulness on the use of electronic banking services for customers of Jordanian banks. International Journal of Data and Network Science, 7(2), 657–666.

Al-Saidi, H., & Al-Rumhi, I. (2023). The Degree of e-Learning Contribution to Achieve the Goals of the Philosophy of Education in Basic Education Schools in the Sultanate of Oman as Perceived by Senior Teachers and its Relationship to Some Variables. Journal of Education/Al Mejlh Altrbwyh, 146(37), 195–217. https://doi.org/10.34120/0085-037-146-008

Al-Shafei, H. (2022). Computerization of Programs for Teaching Arabic to non-native Speakers: Android Applications as a Model. Al-Zaytoonah University of Jordan Journal for Human and Social Studies, 3(special issue), 301–323. https://doi.org/10.15849/ZJJHSS.220508.15

Alshehadeh, A. R., & Al-Khawaja, H. (2022). Financial Technology as a Basis for Financial Inclusion and its Impact on Profitability: Evidence from Commercial Banks. International Journal of Advances in Soft Computing and Its Applications, 14(2), 126–138. https://doi.org/10.15849/ijasca.220720.09

Alshehadeh, A. R., Al-Khawaja, H. A., Yamin, I., & Jebril, I. (2023). The Impact of Financial Technology on Customer Behavior in the Jordanian Commercial Banks. WSEAS Transactions on Business and Economics, 20, 2263–2275. https://doi.org/10.37394/23207.2023.20.195

Alshehadeh, A. R., Elrefae, G. A., Al-Khawaja, H. A., et al. (2022). The Role of Data Mining Tools in Commercial Banks' Cyber-Risk Management. 2022 Ninth International Conference on Social Networks Analysis, Management and Security (SNAMS). pp. 1–8.

Al-Suwaihel, O. (2023). Teacher's Role in Attaining the Pillars of Digital Citizenship in Teaching Students at Government Shools in The State of Kuwait. Journal of Education/Al Mejlh Altrbwyh, 37(146), 47–79. https://doi.org/10.34120/0085-037-146-003

Althobaity, N. (2023). Towards an Environmental Justice: Linda Hogan's Ecoresistance. Arab Journal for the Humanities, 163(41), 327–343. https://doi.org/10.34120/0117-041-163-011

Althunibat, A. (2015). Determining the factors influencing students' intention to use m-learning in Jordan higher education. Computers in Human Behavior, 52, 65–71. https://doi.org/10.1016/j.chb.2015.05.046

Althunibat, A., & Sahari, N. (2011). Modelling the factors that influence mobile government services acceptance. African Journal of Business Management, 5(34), 13030.

Althunibat, A., Abdallah, M., Amin Almaiah, M., et al. (2022). An Acceptance Model of Using Mobile-Government Services (AMGS). Computer Modeling in Engineering & Sciences, 131(2), 865–880. https://doi.org/10.32604/cmes.2022.019075

Althunibat, A., Alokush, B., Dawood, R., et al. (2021). Modeling the factors that influence digital economy services acceptance. 2021 International Conference on Information Technology (ICIT). https://doi.org/10.1109/icit52682.2021.9491686

Althunibat, A., Alokush, B., Tarabieh, S. M., & Dawood, R. (2021). Mobile Government and Digital Economy Relationship and Challenges. International Journal of Advances in Soft Computing & Its Applications, 13(1).

Althunibat, A., Alrawashdeh, T. A., & Muhairat, M. (2014). The Acceptance of Using M-government Services in Jordan. 2014 11th International Conference on Information Technology: New Generations. https://doi.org/10.1109/itng.2014.65

Althunibat, A., Binsawad, M., Almaiah, M. A., et al. (2021). Sustainable Applications of Smart-Government Services: A Model to Understand Smart-Government Adoption. Sustainability, 13(6), 3028. https://doi.org/10.3390/su13063028

Atkins, R. (2005). Software contracts and the acceptance testing procedure. Computer Law & Security Review, 21(1), 51–55. https://doi.org/10.1016/j.clsr.2004.11.010

Batubara, F. R., Ubacht, J., & Janssen, M. (2018). Challenges of blockchain technology adoption for e-government. Proceedings of the 19th Annual International Conference on Digital Government Research: Governance in the Data Age. https://doi.org/10.1145/3209281.3209317

Beugelsdijk, S., & Welzel, C. (2018). Dimensions and Dynamics of National Culture: Synthesizing Hofstede With Inglehart. Journal of Cross-Cultural Psychology, 49(10), 1469–1505. https://doi.org/10.1177/0022022118798505

Chen, Z. J., Vogel, D., & Wang, Z. H. (2016). How to satisfy citizens? Using mobile government to reengineer fair government processes. Decision Support Systems, 82, 47–57. https://doi.org/10.1016/j.dss.2015.11.005

DeLone, W. H., & McLean, E. R. (2016). Information Systems Success Measurement. Foundations and Trends® in Information Systems, 2(1), 1–116. https://doi.org/10.1561/2900000005

Elbahnasawy, N. G. (2014). E-Government, Internet Adoption, and Corruption: An Empirical Investigation. World Development, 57, 114–126. https://doi.org/10.1016/j.worlddev.2013.12.005

ElSherif, H. M., Alomari, K. M., & Alkatheeri, A. S. A. A. O. (2016). Mobile Government Services Satisfaction and Usage Analysis: UAE Government Smart Services Case Study. International Journal of Computer Science and Mobile Computing, 5(3), 291–302.

Hofstede, G. (1991). Cultures and Organizations: Software of the Mind'. McGraw-Hill.

Hsia, P., Gao, J., Samuel, J., et al. (1994). Behavior-based acceptance testing of software systems: a formal scenario approach. Proceedings Eighteenth Annual International Computer Software and Applications Conference (COMPSAC 94). https://doi.org/10.1109/cmpsac.1994.342789

Jebril, I., Almaslmani, R., Jarah, B. A. F., et al. (2023). The impact of strategic intelligence and asset management on enhancing competitive advantage: The mediating role of cybersecurity. Uncertain Supply Chain Management, 11(3), 1041–1046. https://doi.org/10.5267/j.uscm.2023.4.018

Khalil, I. (2008). Handbook of Research on Mobile Multimedia. IGI Global. https://doi.org/10.4018/978-1-60566-046-2

Kinani, A. (2023). The Arabic language in social networking sites, between the Arabic and Latin letters. Al-Zaytoonah University of Jordan Journal for Human and Social Studies, 4(1), 89–106. https://doi.org/10.15849/ZJJHSS.230330.05

Kurfalı, M., Arifoğlu, A., Tokdemir, G., & Paçin, Y. (2017). Adoption of e-government services in Turkey. Computers in Human Behavior, 66, 168–178. https://doi.org/10.1016/j.chb.2016.09.041

Lallmahomed, M. Z. I., Lallmahomed, N., & Lallmahomed, G. M. (2017). Factors influencing the adoption of e-Government services in Mauritius. Telematics and Informatics, 34(4), 57–72. https://doi.org/10.1016/j.tele.2017.01.003

Landrum, H., & Prybutok, V. R. (2004). A service quality and success model for the information service industry. European Journal of Operational Research, 156(3), 628–642. https://doi.org/10.1016/s0377-2217(03)00125-5

Lean, O. K., Zailani, S., Ramayah, T., & Fernando, Y. (2009). Factors influencing intention to use e-government services among citizens in Malaysia. International Journal of Information Management, 29(6), 458–475. https://doi.org/10.1016/j.ijinfomgt.2009.03.012

López-Nicolás, C., Molina-Castillo, F. J., & Bouwman, H. (2008). An assessment of advanced mobile services acceptance: Contributions from TAM and diffusion theory models. Information & Management, 45(6), 359–364. https://doi.org/10.1016/j.im.2008.05.001

Lu, J., Yao, J. E., & Yu, C. S. (2005). Personal innovativeness, social influences and adoption of wireless Internet services via mobile technology. The Journal of Strategic Information Systems, 14(3), 245–268. https://doi.org/10.1016/j.jsis.2005.07.003

McGill, T., Hobbs, V., & Klobas, J. (2003). User Developed Applications and Information Systems Success. Information Resources Management Journal, 16(1), 24–45. https://doi.org/10.4018/irmj.2003010103

Melnik, G., Maurer, F., & Chiasson, M. (2006). Executable Acceptance Tests for Communicating Business Requirements: Customer Perspective. AGILE 2006 (AGILE'06). https://doi.org/10.1109/agile.2006.26

Mensah, I. K. (2019). Impact of Government Capacity and E-Government Performance on the Adoption of E-Government Services. International Journal of Public Administration, 43(4), 303–311. https://doi.org/10.1080/01900692.2019.1628059

Mensah, I. K. (2020). Perceived Usefulness and Ease of Use of Mobile Government Services. International Journal of Technology Diffusion, 11(1), 1–16. https://doi.org/10.4018/ijtd.2020010101

Misuraca, G. C. (2013). e-Government 2015: Exploring m-government scenarios, between ICT-driven experiments and citizen-centric implications Foresight for Dynamic Organisations in Unstable Environments. Routledge. pp. 131–148.

Petter, S., & McLean, E. R. (2009). A meta-analytic assessment of the DeLone and McLean IS success model: An examination of IS success at the individual level. Information & Management, 46(3), 159–166. https://doi.org/10.1016/j.im.2008.12.006

Sari, A. (2016). E-Government Attempts in Small Island Developing States: The Rate of Corruption with Virtualization. Science and Engineering Ethics, 23(6), 1673–1688. https://doi.org/10.1007/s11948-016-9848-0

Sekaran, U. (2009). Research Methods for Business: A Skill Building Approach". UK: John Wiley & Sons.

Sekaran, U., & Bougie, R. (2016). Research methods for business: A skill building approach. John Wiley & Sons.

Sharma, S. K., Al-Badi, A., Rana, N. P., & Al-Azizi, L. (2018). Mobile applications in government services (mG-App) from user's perspectives: A predictive modelling approach. Government Information Quarterly, 35(4), 557–568. https://doi.org/10.1016/j.giq.2018.07.002

Soda, M. Z., Makhlouf, M. H., Oroud, Y., et al. (2023). Does the audit quality have any moderating impact on the relationship between ownership structure and dividends? Evidence from Jordan. Uncertain Supply Chain Management, 11(4), 1789–1800. https://doi.org/10.5267/j.uscm.2023.6.012

Terrenghi, L., Kronen, M., & Valle, C. (2005). Usability requirements for mobile service scenarios. Human Computer Interaction, 1–10.

Wang, C., Teo, T. S. H., & Liu, L. (2020). Perceived value and continuance intention in mobile government service in China. Telematics and Informatics, 48, 101348. https://doi.org/10.1016/j.tele.2020.101348

Zhang, J. X., Zhang, H., Ordóñez de Pablos, P., & Sun, Y. (2014). Challenges and Foresights of Global Virtual Worlds Markets. Journal of Global Information Technology Management, 17(2), 69–73. https://doi.org/10.1080/1097198x.2014.928559

Zhang, X., de Pablos, P. O., & Zhu, H. (2012). The impact of second life on team learning outcomes from the perspective of IT capabilities. The International journal of engineering education, 28(6), 1388–1392.